

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Michael Goessel et al.

Serial No.: 10/577,288

Filed: April 24, 2006

Docket No.: I431.135.101/FIN516PCT/US

Title: EVALUATION CIRCUIT AND METHOD FOR DETECTING AND/OR LOCATING FAULTY DATA WORDS IN A DATA STREAM T_N

REMARKS

The following remarks are made in response to the Final Office Action mailed November 29, 2010. Claims 1-34, 54, and 59-63 have been cancelled. Claim 53 has been allowed. Claims 35-52 and 55-58 were rejected. Applicants respectfully request reconsideration and allowance of the claims in view of the following remarks.

Claim Rejections under 35 U.S.C. § 103

Claims 35, 51, and 55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. U.S. Publication 2004/0246337 (“Hasegawa”), in view of Wu, U.S. Patent 5,831,992 (“Wu”) and Borden et al. U.S. Patent 5,790,561 (“Borden”). Applicants respectfully traverse these rejections.

With regard to a 35 U.S.C. § 103 obviousness rejection: “Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case.” M.P.E.P. 2141 (emphasis in the original). One criterion that must be satisfied to establish a *prima facie* case of obviousness is the reference or combined references must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981 [180 USPQ 580] (C.C.P.A. 1974).

Claim 35 includes,

the first linear automaton circuit and the second linear automaton circuit are designed such that a first signature and a second signature, respectively, is calculated of each data word of the n successive data words $y(1), \dots, y(n)$

The Office Action admits that neither Hasegawa nor Wu disclose at least this claim element, but relies on an alleged disclosure in Borden.

Borden discloses a fault isolation system for use in an integrated circuit that includes a special “user register” that is formed from a series connected chain of multiple input shift registers (MISR). Figure 5 of Borden is reproduced below.

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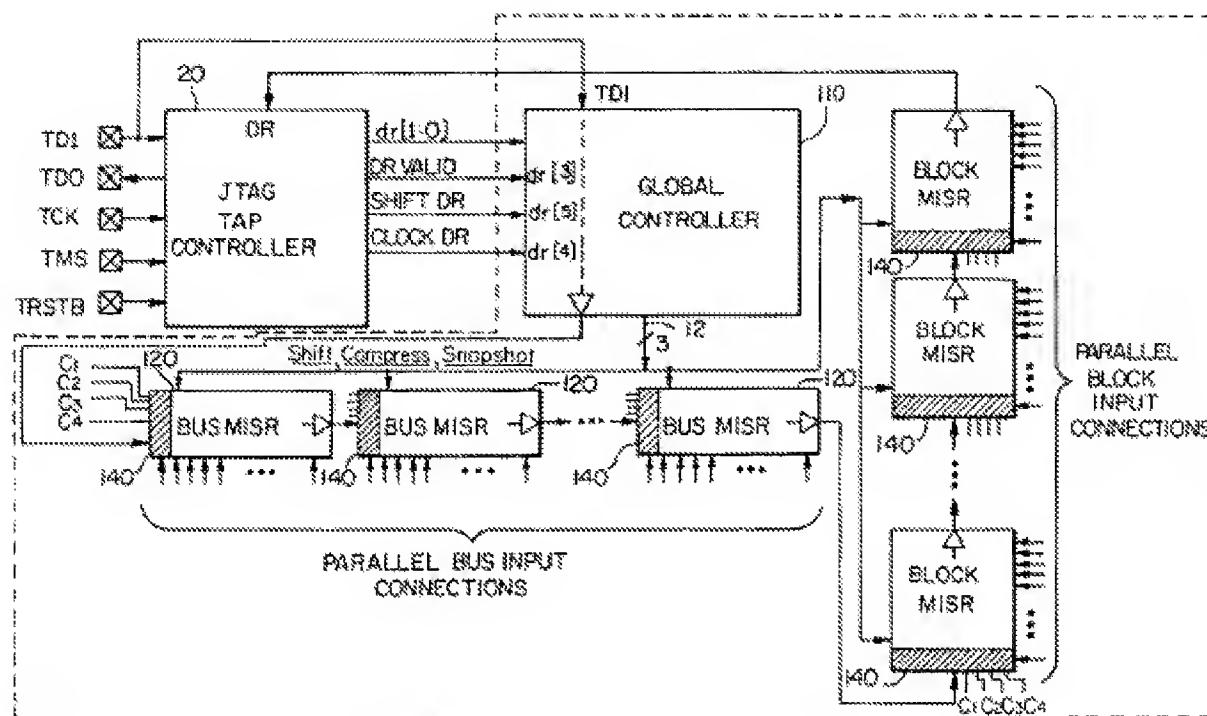


FIG. 5

A tab controller 20 operates a plurality of MISRs MISRs 120, 130 via a unique global controller 110 and a corresponding plurality of local controllers 140. Data is input into each MISR 130 through the corresponding local controller 140 and each MISR 130 receives *different* data words. Thus, as understood by Applicants, first and signatures for each of the data words are not calculated.

Still further, MPEP 2143.02 notes,

A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with *no change in their respective functions....*

(Citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385, 1395 (2007), emphasis added).

Figure 5 of Hasegawa shows that the scan chain compression unit 2 receives data words from the circuit under test 18. However, Hasegawa does not show that both blocks 16 and 2

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receive data words in parallel. These blocks 16 and 2 are used in different modes. Block 16 is used in a failure pattern determination mode, whereas block 2 is used in a failure scan chain determination mode. See, Hasegawa at para. [0064]. Thus, these blocks do not calculate first and second signatures of each data word of n successive data words. Changing the manner in which the blocks operates changes their function. Therefore, there would be no motivation to modify Hasegawa in the manner suggested in the Office Action.

Since the cited references alone or in combination fail to disclose each claim element, the Office Action fails to establish *prima facie* obviousness of claim 35. As such, claim 35, and claims 51, 52 and 55 dependent thereon, are in condition for allowance.

Claims 36, 37, 39, 41-45, and 48-50 and 56-58 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Hasegawa, Wu, and Borden, in view of additional references. These claims all depend on claim 35 and are therefore allowable for at least the same reasons.

Allowable Subject Matter

The Office Action allowed claim 53. The Examiner's acknowledgment of the allowed claim is appreciated.

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CONCLUSION

In view of the above, Applicant respectfully submits that all of the pending claims are in form for allowance. Therefore, reconsideration and withdrawal of the rejections and allowance of the claims are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

Please consider this a Petition for Extension of Time for a sufficient number of months to enter these papers, if appropriate. At any time during the pendency of this application, please charge any additional fees or credit overpayment to Deposit Account No. 500471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

Dicke, Billig & Czaja
Fifth Street Towers, Suite 2250
100 South Fifth Street
Minneapolis, MN 55402

Respectfully submitted,

Michael Goessel et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC
Fifth Street Towers, Suite 2250
100 South Fifth Street
Minneapolis, MN 55402
Telephone: (612) 573-2000
Facsimile: (612) 573-2005

Date: 01/31/2011
MLG:cms

/Mark L. Gleason/
Mark L. Gleason
Reg. No. 39,998